

## **INJECTION-ASSISTING PROBE FOR MEDICAL INJECTOR ASSEMBLY**

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### **ABSTRACT**

A probe and nozzle assembly for reducing the pressure at which a needleless injector must deliver medicament for proper delivery are disclosed. In one embodiment of the probe, the probe is retractably located within an injector nozzle assembly. Upon activation of the energy source a portion of the probe extends past the nozzle assembly to deliver the medicament through a discharge channel. After activation the probe retracts back into the nozzle assembly. In another embodiment, the probe is fixed to the end of the nozzle assembly. In both embodiments the ratio of discharge channel length to diameter is greater than 6/1.